

S-CD 63 S 5.5×L / S-CD 73 S 5.5×L self-drilling screw

Product data

General information

Material specification:

made from A2 (AISI 304) material with fitted sealing washer \varnothing 19 or 22 mm.

Hardened drill point and thread start for trouble-free drilling and thread cutting in the supporting member, stainless steel section (threaded shank and head) for corrosion resistance.

Coloured screws available on request.

Fastening tools

Screwdriver: Hilti ST 1800
Drive using depth gauge set: Item no. 304611
Nut set driver S-NSD 8: Item no. 308901

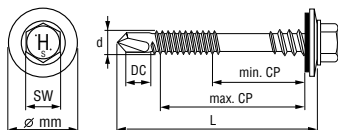
Approvals



Dimensions

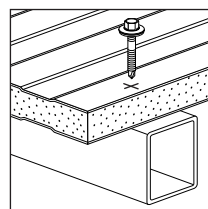
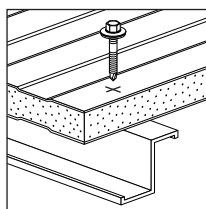
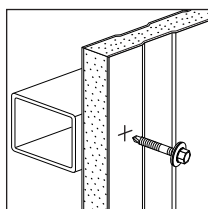
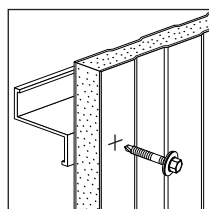
Uses:

The Hilti S-CD self-drilling screw features a threadless shank for relief of pressure on the sandwich panel (no denting) and a threaded section at the head for good sealing washer contact.



Applications

Examples



Load data

Design data

Drilling capacity $\Sigma (t_{N2} + t_{II})$

max. ≤ 5.5 mm

Component II steel with t_{II} [mm]
S235J according to DIN EN 10025-2
S280GD or S320GD (DIN EN 10326)

1.50 2.00 2.50 3.00 4.00

Component I

Sheeting with t_{N1} or t_{N2} [mm]
S280GD or S320GD
(DIN EN 10326)

Shear force $V_{R,k}$ [kN]

0.50	1.30	1.30	1.30	1.30	1.30
0.55	1.50	1.50	1.50	1.50	1.50
0.63	1.70	1.70	1.70	1.70	1.70
0.75	2.00 ^{a)}	2.00	2.00	2.00	2.00
0.88	2.30 ^{a)}	2.30	2.30	2.30	2.30
1.00	2.50 ^{a)}	2.60 ^{a)}	2.60	2.60	2.60

Tension force $N_{R,k}$ [kN]

0.50	1.80	2.60 ^{b)}	2.60 ^{b)}	2.60 ^{b)}	2.60 ^{b)}
0.55	1.80	2.80	3.00 ^{b)}	3.00 ^{b)}	3.00 ^{b)}
0.63	1.80	2.80	3.40 ^{b)}	3.40 ^{b)}	3.40 ^{b)}
0.75	1.80	2.80	3.80	4.20 ^{b)}	4.20 ^{b)}
0.88	1.80	2.80	3.80	4.50	4.50
1.00	1.80	2.80	3.80	4.50	4.50

For t_{N2} made of S320GD all $V_{R,k}$ values, except those marked with ^{a)}, can be increased by 8.3 %.

For t_{N2} and t_{II} made of S320GD all $V_{R,k}$ values can be increased by 8.3 %.

For t_{N1} made of S320GD all $N_{R,k}$ values, except those marked with ^{b)}, can be increased by 8.3 %.

For t_{N1} and t_{II} made of S320GD all $V_{R,k}$ values can be increased by 8.3 %.

Max. screw head deflection u

depending on the
sandwich panel thickness

[mm]

40	18.0	8.0	7.0	6.0	5.0
50	22.0	10.5	9.0	7.5	6.5
60	26.0	13.0	11.0	9.0	8.0
70	29.5	16.5	14.0	12.0	11.5
80	33.0	20.0	17.5	15.0	14.0
100	33.0	20.0	17.5	15.0	14.0
120	33.0	20.0	17.5	15.0	14.0
≥140	33.0	20.0	17.5	15.0	14.0

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{\text{cyclic}} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{\text{GLOB}} = 2.0$	$\gamma_{\text{GLOB}} = 2.0$
Recommended load	$N_{\text{rec}} = 1.0 \cdot N_{Rk} / 2.0$	$V_{\text{rec}} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

Screw selection
Screw program

Drilling thickness DC mm	Sandwich panel thickness CP min.–max. in mm	Dimensions (dxL) mm	Sealing washer ∅ mm	Head size AF	Package contents	Ordering designation	Item no.
2.0–5.5	22– 47	5.5x75	19	8	100	S-CD63S 5.5x75	375244
2.0–5.5	32– 57	5.5x85	19	8	100	S-CD63S 5.5x85	375245
2.0–5.5	42– 67	5.5x95	19	8	100	S-CD63S 5.5x95	375246
2.0–5.5	62– 87	5.5x115	19	8	100	S-CD63S 5.5x115	375247
2.0–5.5	82–107	5.5x135	19	8	100	S-CD63S 5.5x135	375248
2.0–5.5	102–127	5.5x155	19	8	100	S-CD63S 5.5x155	375249
2.0–5.5	122–147	5.5x175	19	8	100	S-CD63S 5.5x175	284542
2.0–5.5	137–182	5.5x210	19	8	100	S-CD63S 5.5x210	284543
2.0–5.5	22– 47	5.5x75	22	8	100	S-CD73S 5.5x75	285642
2.0–5.5	32– 57	5.5x85	22	8	100	S-CD73S 5.5x85	285643
2.0–5.5	42– 67	5.5x95	22	8	100	S-CD73S 5.5x95	285644
2.0–5.5	62– 87	5.5x115	22	8	100	S-CD73S 5.5x115	285645
2.0–5.5	82–107	5.5x135	22	8	100	S-CD73S 5.5x135	285646
2.0–5.5	102–127	5.5x155	22	8	100	S-CD73S 5.5x155	285647
2.0–5.5	122–147	5.5x175	22	8	100	S-CD73S 5.5x175	285648
2.0–5.5	137–182	5.5x210	22	8	100	S-CD73S 5.5x210	285649